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JAPANESE [JP,07-018046,Y]

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CLAIMS DETAILED DESCRIPTION DESCRIPTION OF DRAWINGS DRAWINGS

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[Translation done.]

JP,07-018046,Y [CLAIMS]

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**CLAIMS**

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[Utility model registration claim]

[Claim 1] The tray of the disk player which comes to carry out outsert shaping of the resin at the metal plate used as the base.

[Claim 2] Resin is the tray of a disk player given in the claim (1) characterized by being fabricated by the part which contacts a disk.

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**DETAILED DESCRIPTION**

[Detailed explanation of a design]

(b) Field-of-the-invention this design on industry is related with the tray used for a disk player.

(b) The tray for disk conveyance used for Prior-art present a compact disc player or a videodisk player is formed by carrying out injection shaping of the resin, such as plastics. However, as for the tray formed by doing in this way, a dimension will change with change of temperature. This dimensional change becomes so large that the magnitude of a tray becomes large. For this reason, in this tray, in order to prevent a dimensional change, there are some in which the metallic ornaments for reinforcement are attached as shown in Figs. 4 and 5.

As for a tray and (2), in this drawing, (1) is [ a disk stowage and (3) ] screws for a notch, (4), and (4) to attach each metallic ornaments in the guide slot for tray guidance, and for (5) attach [ as for the rack gear for driving force transfer, (6) and (7), and (7) ] them in a tray (1), as for the metallic ornaments for reinforcement, and (8) and (8) —. A guide slot (4) and (4) are formed in the both-sides side of a tray (1), engage with the projection allotted to the chassis in a player, and guide a tray horizontally. A rack gear (5) meshes with the drive gear allotted in the player, and transmits the driving force of a motor to a tray.

However, in order to be able to control said dimensional change produced on the tray if the metallic ornaments for reinforcement are attached in a tray in this way, but on the other hand to have to attach metallic ornaments in a tray, a problem will arise in the workability on tray manufacture.

The problem of the dimensional change by said temperature change is solvable if a tray is formed with a metal plate. However, in the thing which tie the slot for the above-mentioned tray guidance, the rack gear for driving force transfer, etc. to a metal plate and out of which it cheats, a problem arises in this case. Moreover, receipt of the metal tray which requires a disk also produces the problem said that a disk side gets damaged by contact on a tray.

(c) Technical-problem this design which invention tends to solve tends to propose the tray of a disk player with sufficient fabrication operation nature, without the dimensional change by the temperature change arising.

(d) In view of the The means for solving a technical problem above-mentioned technical problem, the tray of this design comes to carry out outsert shaping of the resin at the metal plate used as the base.

(e) Since an operation metal plate is the base, a dimensional change does not arise on a tray by the temperature change. Moreover, a tray can be manufactured to this metal plate according to the easy activity which carries out outsert shaping of the resin.

(\*\*) Explain the example of this design using a drawing below an example. Fig. 1 is drawing showing the base. This base (10) is formed by carrying out press forming of the aluminum plate. In this base, three crevices (11) where paths differ, (12), (13), (14), and the (1st, 2nd, 3rd, and 4th crevice) are formed in the top face. Each crevice is for containing the videodisk of the diameter of 30cm, the videodisk of the diameter of 20cm, the compact disk of the diameter of 12cm, and the compact disk of the diameter of 8cm, respectively. Furthermore, hole (21) and (21) — is formed in the part which carries out outsert shaping of the resin in this base (10). In addition, (15) is opening formed since the pickup by the side of a player body and a turntable moved to a

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top face from the inferior surface of tongue of a tray.

This base (10) is inserted in the mold of an outsert making machine, and it is crowded, and after an appropriate time, resin shaping is performed to each part and a tray is completed. Fig. 2 is a perspective view of this tray. The frame part by which the resin shaping section of the base (10) was formed in the periphery section (16). (The boss for putt attachment (17) and (17) which were formed in the 1st crevice (11), (17), and (17), The rib (18) which served both as the disk installation base and the disk positioning section which were formed in the boundary parts of the 2nd and 3rd crevice (12) and (13), (18), (18), and (18), It is the rib (20) which are the rib (19) which served both as the disk installation base and the disk positioning section which were formed in the boundary parts of the 3rd and 4th crevice (13) and (14), (19), (19), (19), and the disk installation base formed in the 4th crevice (14), (20), and (20). In addition, a frame part (16) has the inner circumference section according to the profile of the 1st crevice (11), among these the rib for disk positioning (16a) (16a) (16a) (16a) is formed in the periphery. Moreover, the guide slot for tray guidance (16b) (16b) is formed in this frame part (16) so that it may be located in the both-sides side of a tray. Furthermore, the rack gear for driving force transfer (not shown) is formed in the background of the shaping section (16c). Moreover, the rib for disk positioning (17a) (17a) (17a) (17a) is formed in the inner circumference side a boss (17), (17), (17), and (17). Fig. 3 is an A-A' line sectional view of this tray. Outsart shaping is carried out as a boss (17) and a rib (18) are shown in this drawing. Moreover, outsart shaping of the other ribs etc. is carried out almost like this.

As mentioned above, although one example of this design was explained, this design is not limited to this example and it cannot be overemphasized that various modification is otherwise possible. According to this design, a tray which the dimensional change by the temperature change does not produce can be formed according to an easy routing beyond the effectiveness of a (g) design.

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**DESCRIPTION OF DRAWINGS**

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**[Brief Description of the Drawings]**

Figs. 1 - 3 are drawings showing the example of this design, and the perspective view showing [ 1 ] the tray on which the perspective view of the base and Fig. 2 were completed, and Fig. 3 are perspective views as which the A-A' line sectional view of Fig. 2 . Fig. 4 , and the base 5 Fig. regarded the conventional example from the top face and the rear face.  
(10) -- The base, (16), (17), and (18), (19), (20) -- A frame part, a boss, and rib (resin shaping section).

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[Translation done.]

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⑪ 実用新案出願公開

⑫ 公開実用新案公報(U)

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審査請求 未請求 請求項の数 1 (全2頁)

⑮ 考案の名称 ディスクプレーヤのトレイ

⑯ 実 願 平2-76662

⑰ 出 願 平2(1990)7月19日

⑱ 考 案 者 小 田 島 秀 雄 大阪府守口市京阪本通2丁目18番地 三洋電機株式会社内  
 ⑱ 考 案 者 重 富 一 夫 大阪府守口市京阪本通2丁目18番地 三洋電機株式会社内  
 ⑱ 考 案 者 石 田 秀 喜 大阪府守口市京阪本通2丁目18番地 三洋電機株式会社内  
 ⑲ 出 願 人 三 洋 電 機 株 式 会 社 大阪府守口市京阪本通2丁目18番地  
 ⑳ 代 理 人 弁 理 士 西 野 卓 嗣 外2名

## ⑳ 実用新案登録請求の範囲

- (1) ベースとなる金属板に樹脂をアウトサート成形してなるディスクプレーヤのトレイ。  
 (2) 樹脂は、ディスクと当接する部分に成形されていることを特徴とする請求項(1)に記載のディスクプレーヤのトレイ。

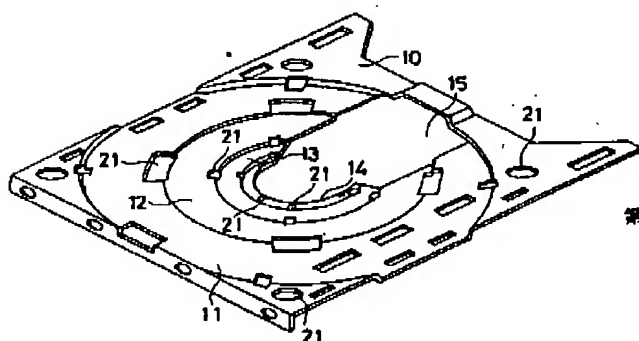
## 図面の簡単な説明

第1図～第3図は本考案の実施例を示す図で、

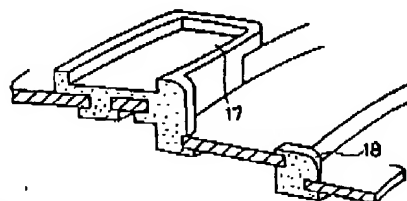
第1図はベースの斜視図、第2図は完成されたトレイを示す斜視図、第3図は第2図のA-A'線断面図、第4図及び第5図は従来例を上面及び裏面から見た斜視図である。

10……ベース、16、17及び18、19、20……枠部、ボス及びリブ(樹脂成形部)。

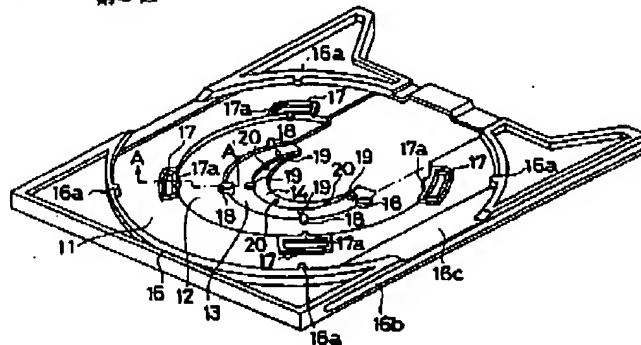
第1図



第3図

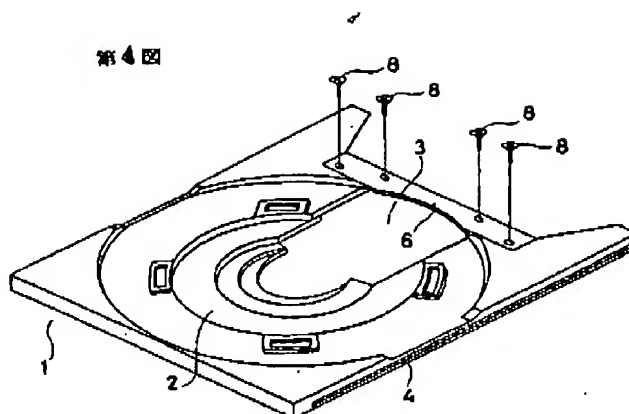


第2図



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第4図



第5図

